

In the Claims:

Please amend Claims 1, 2 and 4 and add new Claims 7-10 as indicated below.

The status of all pending claims is as follows:

1. (Currently Amended) A method of manufacturing a magneto-resistance effect type head, the magneto-resistance effect type head that includes an element portion of magneto-resistance effect type and reproduces a read signal of data from a recording medium by the element portion, comprising:

applying a predetermined DC current to deform the element portion thermally;

and

performing heat treatment on a deformed part of the element portion ~~that has been thermally deformed due to application of the DC current.~~

2. (Currently Amended) The method according to claim 1, wherein the performing includes causing a surface of a bump disk to collide with the deformed part of the element portion.

3. (Original) The method according to claim 2, wherein the bump disk is a laser bump disk.

4. (Currently Amended) The method according to claim 3, wherein the laser bump disk and the deformed element portion are made to collide for five minutes.

5. (Original) The method according to claim 2, wherein a plurality of bumps each having a ring-shaped protrusion and a recess is spirally formed on the bump disk.

6. (Original) The method according to claim 1, further comprising:
forming the magneto-resistance effect type head with a write element and a read element; and
applying a weak current to the read element.

7. (New) A method of manufacturing a magneto-resistance effect type head, the magneto-resistance effect type head that includes an element portion of magneto-resistance effect type and reproduces a read signal of data from a recording medium by the element portion, comprising:

applying a predetermined DC current to the element portion;
performing heat treatment on a part of the element portion that has been thermally deformed due to application of the DC current; and
wherein the performing includes causing a surface of a bump disk to collide with the part of the element portion.

8. (New) The method according to claim 7, wherein the bump disk is a laser bump disk.

9. (New) The method according to claim 8, wherein the laser bump disk and the element portion are made to collide for approximately five minutes.

10. (New) The method according to claim 7, wherein a plurality of bumps each having a ring-shaped protrusion and a recess is spirally formed on the bump disk.